

Legs dark gray, tibiae and tarsi of the fore pair and tarsi of the others, ochreous. Abdomen dark purplish gray above, yellowish beneath toward the tip, anal tuft yellow.

Expanse: 5-5.5 mm.

Twenty-two specimens bred from mines on red oak (*Quercus rubra* L.) Cincinnati, O.; one captured specimen, taken at Oak Station, Pa., May 17th, 1910, by Mr. Fred Marloff.

The mine is a pale greenish gradually broadening linear tract, 3.5 mm. wide at the end, with a blackish line of frass through the centre. Larva yellow even when very young; thus this mine can early be distinguished from the other linear mines on oak. Cocoon brownish ochreous, obovoid.



Fig. 8.—Mine of *N. terminella*.

There are three generations a year, and, in favourable seasons, a fourth. Mines containing full-grown larvæ may be collected in the middle of June, the latter part of July, the end of August and beginning of September, and during

the latter part of October up to as late as the ninth of November, producing imagoes during the summer within two weeks after pupation. The mines occur most commonly on red oak, but also on pin oak (*Q. palustris* Du Roi) on black oak (*Q. velutina* Lam.) and on *Q. marylandica* Muench.

A cotype in Mr. Marloff's collection.

NEW AMERICAN CHRYSOPIDÆ.

BY NATHAN BANKS, EAST FALLS CHURCH, VA:

The following five new species of Chrysopidæ are among recent additions to my collection from Central and South America. Of particular interest is the *Nothochrysa*, which is quite different from the other species of the genus from South America and more allied to our Californian one.

Chrysopa rufolinea, n. sp.

Yellowish green, a sinuate band of reddish below antennæ, and one across base of the clypeus, a red spot on the cheek, a red line

from base of antennæ up on to the vertex following a groove near the eye; antennæ pale, unmarked; pronotum with a faint dark mark on each side; thorax, legs and the abdomen unmarked. Wings with pale venation, costals partly obscured, gradates hardly infusate, stigma greenish. Pronotum very broad, nearly twice as broad behind as long, narrowed in front. Wings long and slender, acute at tips, divisory veinlet ends much beyond the cross-vein, gradates very close together, the inner series very much nearer outer than to the radial sector, five or six in inner row, eight or nine in outer; marginal forks two and a half times as long as broad; second cubital cell much narrower at tip than the third at base. In hind wings five inner and eight outer gradates. Expanse 30 mm.

From Cali, Colombia, 1000 m (Fassl).

***Chrysopa sarta*, n. sp.**

Yellowish green; no marks on head nor palpi; basal joint of antennæ yellowish, with black outer streak, rest of antennæ (including second joint) black, but getting paler towards tip, pronotum pale, with red marginal stripe; rest of thorax, legs, and the abdomen pale, unmarked. Wings hyaline, unmarked, venation greenish, most cross-veins wholly black, but some costals near stigma are pale, gradates black, and some veins running into hind margin also black; origin of the radial sector black; stigma scarcely distinct; hind wings with veins all pale greenish. Pronotum about as long as broad, not much narrowed in front. Wings moderately slender, acute at tips, fore wings with divisory veinlet ending beyond the cross-vein, second cubital cell much narrower than the third; five inner, seven outer gradates, each much separated from the next, inner series as close to radial sector as to outer series; marginal forks about three times as long as broad; hind wings with four inner and six outer gradates. Expanse 26 mm.

From Orosi, Costa Rica, 500 m. (Garlepp).

***Chrysopa leptana*, n. sp.**

Head reddish yellow; maxillary palpi with last two joints black; basal joint of antennæ yellowish, rest (including the second joint) black; pronotum green, rest of thorax green, with pale spots above base of wings; legs and abdomen greenish, unmarked. Wings hyaline; venation green, cross-veins, gradates, many branches

ending in hind margin, divisory veinlet, base of radial sector, upper side of second cubital cell partly, and bases of branches of radial sector black. Hind wings with costals and some other cross-veins partly black; stigma in both wings long, deep green. Pronotum much broader than long, narrowed in front. Wings not very broad, acute at tips, two or three inner gradates, four or five outer ones, inner series much nearer to outer than to radial sector; marginal forks hardly twice as long as broad; divisory veinlet ends beyond the cross-vein; second cubital cell much narrower than the third. Expanse 24 mm.

From Oaxaca, Mexico (Crawford).

***Leucochrysa luctuosa*, n. sp.**

Face with large spot on clypeus and triangular spot under each antenna reddish, vertex with an irregular red stripe each side; palpi unmarked; basal joint of antennæ with broad red stripe on outer side, about 20 of next joints with black on inner side; pronotum with red stripe on each side (not marginal) more approximate behind the furrow; thorax with red spots each side in front, two on each scutellum, and mark over base of hind wings; basal abdominal segments with red mark each side. Wings with greenish venation, base of radial sector and a portion toward stigma with its branches each side partly black; many costals at margin black, two or three radial cross-veins near base are black in middle; the base of second cubital cell, and part of third, and a few anals near by are black, gradates pale; hind wings with radial sector black near stigma, not at base, outer hind margin blackish for a long distance; stigma in both pairs black at base. In fore wings the inner gradates extend basally, so there are about 15 or 16 of them, 12 in the outer series, the two series farther apart in middle than at either end; radial sector sinuous.

Expanse 5.7 mm.

From Orosi, Costa Rica and Rio Longo, Bolivia (Fassl). Related to *L. azevedoi* Navas (which I have from British Guiana) but much larger, and various minor marks different.

***Nothochrysa tibialis*, n. sp.**

Head yellow, a black streak under eyes, two large black or dark brown longitudinal marks on the vertex; palpi marked with dark; basal joint of antennæ wholly shining dark brown above.

rest of antennæ beyond blackish, but paler towards tips; pronotum with a broad lateral black stripe, almost connected across the furrow; thorax with a broad black stripe over base of wings, anterior edge of mesothorax black; abdomen with a blackish stripe each side above, nearly connected at the tips of the segments; pleura with two black spots; legs pale, tibiae I and II with a dark mark on outer base. Wings with almost wholly dark brown venation, the subcosta pale, and parts of median, the cubitus and anals at base also pale; hind wings with mostly pale venation, the costals, veins ending in hind margin, and base of radial cross-veins black; stigma narrow, yellow-brown, not distinct. Pronotum a little longer than broad, slightly narrowed in front; wings moderately broad, rounded at tips, the divisory veinlet ends in end-vein of cell, but near its upper end, so that the divisory cell is much broader at base than at tip, six gradates in each series, each gradate widely separated from the next, the inner series much nearer to radial sector than to outer row; the outer marginal forks mostly three times as long as broad; costal area quite broad; in hind wings five or six inner gradates and six outer ones. Expanse 27 mm.

From Rio Longo, Bolivia, 750 m. (Fassl).

ON THE SYNONYMY OF CERTAIN FLORIDA LEPIDOPTERA.

BY WM. BARNES, M.D., AND J. MCDUNNOUGH, PH.D., DECATUR, ILL.

In the August number of *Insecutor Inscitiæ Menstruus*, Dr. Dyar has justified the title of his publication and subjected a recent papers of ours on "Some Apparently New Florida Species."* to a grilling calculated to prevent less enthusiastic entomologists than ourselves from ever again obtruding themselves on the notice of the long-suffering entomological public.

It is not the purpose of this article to justify the causes that led to the article in question; this, if necessary, can be left to other competent individuals; we would merely in the following notes give our own views on the points of synonymy as laid down by Dr. Dyar, for we fear that in several instances his desire to swell the list of synonyms has led him to be a little hasty in his judgment.

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